

Multi-Year Estimates Study

Questions and Answers

Scope

1. What areas are included in this study and why were they selected?

The 34 areas included in this study correspond to the counties where the ACS has been testing data collection using the full implementation sample design and at least the full implementation sampling rate. Thus, this study only includes 34 counties where the sample is comparable to the sample sizes that will be used to produce the first set of full production multi-year estimates.

2. For which years are multi-year estimates available?

A total of eight multi-year estimate data sets were created using data from 1999 to 2005; three 5-year estimates and five 3-year estimates. The 5-year estimates data are available for the 2001-2005, 2000-2004, and 1999-2003 periods. The 3-year estimates are available for the 2003-2005, 2002-2004, 2001-2003, 2000-2002, and 1999-2001 periods.

3. Are data only available for counties or are data released for other types of geographic areas like places or tracts?

For 1-year, 3-year, and 5-year estimates, data are available for counties, place parts, Minor Civil Divisions (MCDs), secondary and unified school districts, and Public Use Microdata Areas (PUMAs). In addition to these geographic areas, 3-year and 5-year estimates are also available for elementary school districts. For 5-year estimates only, data are also available for American Indian Areas, Zip Code Tabulation Areas (ZCTAs), tracts, and block groups.

4. How can I determine which specific geographic areas are available?

The specific geographic areas for which data are available depend upon the data set of interest (1-year, 3-year, or 5-year) and the total population size of the area. For 1-year estimates, data are available for select geographic areas with a population of 65,000 or more. For 3-year estimates, data are available for select geographic areas with a population of 20,000 or more, and for 5-year estimates, data are available for all geographic areas included in the study.

For a complete list of specific geographic areas, see <http://www2.census.gov/acs/MultiYearEstimates/geography.xls>.

5. Why do some areas have only 3-year (or 5-year) data but not 1-year (or 3-year) data?

In order to release data products based on a single year of sample, the geographic area must satisfy a 65,000 total population threshold. Similarly, the geographic areas that receive 3-year estimates must satisfy a 20,000 total population threshold. If an area has fewer than 65,000 total population, then only multi-year data will be released for that area in the form of both 3-year and 5-year estimates. If the area has fewer than 20,000 total population, then only the 5-year data will be released for that area.

6. What products were released and what characteristics are included in these products?

Data profiles that include demographic characteristics such as age and sex; social characteristics such as educational attainment; economic characteristics such as employment status and income; and housing characteristics such as housing occupancy and home values are available. The data profiles display the estimated totals and estimated percentages along with their associated margins of error for each single and multi-year estimate.

7. Do these data include only people living in housing units or does it also include people living in group quarters?

These data only include the population living in housing units. In 2000, 2002, 2003, 2004, and 2005, ACS data for these test sites were only collected for the population living in housing units. Multi-year estimates could therefore only be produced for the household population.

Relationship to other estimates

8. Is this the same set of products that you will release in 2008 when you release the national multi-year estimates?

No. The only data product being released from this study is the Data Profile. The complete set of current data products will be included in the 2008 multi-year estimates release for the entire nation (and Puerto Rico).

9. How do these data differ from data that were previously released for these areas?

A few estimates that are included in the standard ACS Data Profile product could not be included, or could only be included in a modified form, in this version of the Data Profile due to questionnaire changes that occurred during the 1999-2005 time period.

The characteristics affected are

1. Years responsible for grandchildren: removed
2. Disability status of the civilian noninstitutionalized population: removed
3. Vacancy rate lines in the Housing Profile table were changed due to a change in the definition of vacancy status in 2005
4. Year Structure Built lines in the Housing Profile table were collapsed into fewer categories

10. How do these ACS estimates compare with the population estimates released by the Census Bureau for these areas?

The multi-year estimates are controlled to the average household population estimate for that area over the period for which the multi-year estimate covers. Because we use an average, the ACS estimate for total household population will not match up to a single year's population estimate. In addition, since these data are for the household population only, the ACS estimate of total household population will typically be lower than the Population Estimates Program estimate of total population which also includes an estimate of those persons living in group quarters.

11. Can I compare these estimates to Census 2000 estimates?

There are global differences between the ACS and Census 2000 that should be considered before comparisons are made. These include differences in the universe, residence rules, and reference periods. For example, the Census 2000 estimates include the group quarters population, whereas the Multi-Year Estimates Study data do not. In areas where you feel that the contribution from group quarters is limited, it may therefore be reasonable to make comparisons with Census 2000.

12. Can I compare the 3-year and 5-year estimates to the 1-year estimates for the same areas?

Although overlapping multi-year estimates can be compared to 1-year estimates for the same area, data users must be very careful on how to interpret the differences. Users must realize that these estimates describe different time periods and there is no expectation that they will be similar. For example, if the difference between a 5-year estimate and a 1-year estimate is statistically significant, this should not necessarily be indicative of a statistically significant change in the last year of the 5-year estimation period. A plausible explanation is that the statistically significant change took place in any of the 5 years. For instructions on how to conduct a statistical test to see if the difference is statistically significant, users should refer to the Accuracy of the Data for Multiyear Estimates Study.

13. How can I combine these data to produce summary data for additional geographic areas like, neighborhoods? How can I get the associated margins of errors for those combined estimates?

For totals, the ACS estimates can simply be added across geographies. For ratios or percents, total the numerators and denominators separately, and then divide the totals. Instructions are given in the Accuracy of the Data for the Multiyear Estimates Study for calculating standard errors of totals, ratios, and percents.

14. When will the Census Bureau be releasing multi-year estimates for the nation?

In the summer of 2008, the Census Bureau will release the first set of multi-year estimates based on data collected in 2005 through 2007 for the nation, states, counties, and other geographic areas with a population of 20,000 or more. In 2010, 5-year estimates based on data collected in 2005 through 2009 will be released for the smallest geographic areas - down to the tract and block group level.

15. How can I compare the quality (especially the reliability) of these data to data from Census 2000?

Margins of error and confidence bounds are a common way to compare reliability between two surveys. Margins of error are provided for multi-year ACS estimates, and confidence bounds can be obtained from them using the instructions in the Accuracy of Data for the Multiyear Estimates Study. Standard errors for Census 2000 long form estimates can be calculated using the methods described in Chapter 8 of the [SF 3 Technical Documentation](#), and margins of error and confidence bounds can be computed from them.

Information on other quality measures published for the Multi-Year Estimates Study is available in the Quality Measures documentation. There are comparable measures from Census 2000 available for only some of these.

Imputation rate tables for many Census 2000 characteristics are available on American FactFinder. These can be compared to the ACS allocation rates published for these multi-year products.

The number of unweighted persons and housing units is available for all geographic areas published in Census 2000's SF3 products on American FactFinder. However, this is not directly comparable to either the initial addresses selected or the number of final interviews given in the ACS quality measures.

There are no published Census 2000 measures comparable to the ACS response rates and reasons for noninterview. The concept of coverage rates cannot be applied to the Census 2000 long form sample due to the way its final weights were calculated.

Methods

16. What measures were taken to protect the confidentiality of the data used to produce these estimates?

The data use the same disclosure limitation methodology as the original 1-year data. The confidentiality edit was previously applied to the raw data files when they were created to produce the 1-year estimates and these same data files with the original confidentiality edit were used to produce the 3-year and 5-year estimates.

In addition, data profiles for tabulation areas that contained only a small number of households are not being released. In order to prevent the disclosure of the data for these areas through subtracting estimates from nested geographic areas, some additional tabulation areas are also not being released. We are researching alternative options to address disclosure risks for these types of areas for the production of our first 5-year data product in 2010.

17. Did you use the same data collection and data processing methods used in previous ACS data products for these products?

Since these multi-year estimates were formed by pooling previously collected ACS data, the data collection and data processing methods are the same as the previous ACS data products.

18. What weighting and estimation methods were used to produce 3-year and 5-year estimates? How does this differ from the methods used to produce 1-year estimates?

The weighting steps for the 3-year and 5-year estimates for all periods use the methodology applied to the 2005 data with a few exceptions: the geography of the multi-year estimates is always the geography of the latest year, all monetary data have been converted into constant dollars of the last year of the multi-year estimation period, and a variance reduction step has been added to the weighting methodology to improve the reliability of the 3-year place and minor civil division level estimates and the reliability of the 5-year tract level estimates.

Quality

19. How can I tell what the sample sizes were that were used to produce these estimates?

We are providing the sample size in the quality measures data which are available only on the FTP site. We provide both the initial addresses selected as well as the number of final interviews. This information is provided down to the tract level. No sample size quality measures are produced for block groups.

20. What measures of quality exist for these estimates?

There are four quality measures for these estimates: 1) sample size, 2) response rates, 3) coverage rates, and 4) allocation rates. These quality measures are available only on the FTP site.

21. How do the sample sizes used for these test areas compare with the sample sizes that are expected in the first 3-year estimates scheduled for release in 2008?

A number of sample design changes were made to the American Community Survey between 1999 and 2005 that do affect the sample sizes over time.

- There were changes to the base sampling rate over the years that occurred as the housing unit address universe continued to grow.
- Beginning in 2003, Minor Civil Divisions (MCDs) in "strong MCD" states were included as sample design areas.
- Starting in 2004, an additional sampling stratum was added that sampled very small governmental units.
- Starting in 2005, the measure of size for most sample design areas was the estimate of occupied housing units and not that of total housing units previously used.
- Beginning in 2005, the measure of size for American Indian/Alaska Native areas was calculated by multiplying the occupied housing units estimate by the proportion of population who self-identified in Census 2000 as American Indian, either alone, or in combination with one or more race categories.
- The sample sizes since 2005 are relatively stable as no major design changes have been implemented.

Presentation

22. How are the data displayed? What measures of sampling error are provided?

The data are displayed in a data profile format that includes selected demographic, social, economic, and housing characteristics. The data profiles display the estimated totals and estimated percentages along with their associated margins of error. The margins of error are based on a 90 percent confidence level. You can obtain a 90 percent confidence interval for the estimate by subtracting and adding the margin of error to the estimate.

23. Where can I find the data? In what formats can they be downloaded?

These data along with the quality measures are available to be downloaded from the FTP site at

<http://www2.census.gov/acs/MultiYearEstimates/>.

The FTP site has files available for downloading in the following formats: Excel, Text (percent delimited), and SAS.

Interpretation

24. How should I interpret a 3-year or 5-year estimate?

A 3-year and a 5-year estimate should be interpreted in a similar manner as a 1-year estimate. They reflect the average characteristics of the population for an area (or population group) over the entire data collection period, that is 36 months for 3-year estimates and 60 months for 5-year estimates. As such, the ACS estimates are labeled based on the period of sample years that comprise the estimates. For example, the 5-year estimate corresponding to the period 2001 through 2005 is labeled "2001-2005."

25. Are these official estimates?

No. The data were produced to test production methods planned for the official release of 3-year estimates in 2008 and are therefore considered research data. These data have not undergone the subject matter and technical review required for standard ACS data products.